

# THE EFFECT OF LIQUIDITY, LEVERAGE, AND COMPANY SIZE ON TAX AGGRESSIVENESS IN INDUSTRIAL SECTOR COMPANIES ON THE INDONESIA STOCK EXCHANGE FOR 2019-2021

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## Abstract:

Taxes have a significant role in economic growth in Indonesia, which is reflected in the state budget that tax contributions dominate compared to non-tax revenues. Therefore, tax revenues must be optimally increased so that economic growth runs well. In the company's operational activities, taxes are recognized as a burden on the company, so it does not rule out the possibility that the company carries out tax aggressiveness actions by minimizing the tax burden that must be paid. This study examines the effect of liquidity, leverage, and company size on tax aggressiveness in industrial sector companies on the Indonesia Stock Exchange for 2019-2021. This study uses secondary data. The population in this study is the industrial sector companies listed on the Indonesia Stock Exchange, with a population of 55 companies. The type of sampling in this study uses purposive sampling. This type of research is quantitative research. The method of analysis in this study is descriptive statistics, classical assumption test, multiple linear regression, and hypothesis testing. The results showed that liquidity partially has no effect on tax aggressiveness, leverage affects tax aggressiveness, and firm size harms tax aggressiveness.

**Keywords:** Tax Aggressiveness, Liquidity, Leverage, Company Size.

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## INTRODUCTION

Equitable national development is one of the factors that have an impact on improving the community's economy. To fund national development, a considerable amount of funds is needed through the APBN, which one of the sources of income comes from tax revenues. In the realization of national income, the contribution of taxes to the APBN is compared to non-tax revenue, which means the role of taxes is significant in supporting the country's economy. The company must carry out its tax obligations following applicable regulations as a business entity. The formation of a company with the aim that through ongoing activities, it is possible to obtain the maximum possible profit. From an accounting perspective, to calculate net profit, use the profit before tax formula minus tax expenses.

Consequently, taxes are considered expenses that will reduce company profits. The higher the tax burden paid, the less profit will be obtained by the company. Thus this needs to follow the company's goals because the company has a goal, namely, to obtain the maximum profit. On the

other hand, the government, as a tax collector, expects to obtain as much tax revenue as possible from taxpayers, including corporate taxpayers.

The law states that taxes can be forced; based on that, the company as a taxpayer must carry out its obligations. However, the existence of obligations that must be carried out and the differences in interests between the government and companies can make companies, as taxpayers, look for ways to minimize the tax burden to be paid so that they continue to carry out their tax obligations. This can cause companies to try to make tax savings by seeing and taking advantage of opportunities related to taxation to suppress as much as possible the tax burden to be paid, resulting in acts of tax aggressiveness.

Tax aggressiveness is a company action that can reduce tax obligations. In this study, several factors can influence the occurrence of tax aggressiveness. The act of tax aggressiveness aims to lower the rate of income tax collected through tax management activities, both legally and illegally. Tax aggressiveness is a problem for the government because companies who are more aggressive towards taxes affect causing losses to the government as tax collectors, thereby reducing state revenues derived from the taxation sector, which will impact the State Revenue and Expenditure Budget. In this study, several factors can influence the occurrence of tax aggressiveness, namely Liquidity, Leverage, and Company Size.

Liquidity is the company's ability to settle short-term obligations. Liquidity can be calculated using the information in the financial statements, which use the formula of current assets divided by current liabilities. Leverage is a ratio that shows how much the company's financing comes from debt. The use of large debt will cause an increasingly significant interest expense. It will affect company profits, where reduced company profits will minimize the tax burden that the company will pay. Company size is one of the characteristics of a company that is related to the operational aspects of a company. The characteristics of a company can affect its costs of a company, including the company's tax burden. Company size is measured by the total assets' natural logarithm (Ln).

## METHODS

**Types of Research** The type of research used in this study is quantitative in the form of associative, which aims to find out the relationship between the variables so that research can explain or test the hypothesis of the Effect of Liquidity, Leverage, and Firm Size on Tax Aggressiveness. The research was conducted on companies belonging to the industrial sector listed on the Indonesia Stock Exchange by accessing the official website, [www.idx.co.id](http://www.idx.co.id).

**Population and Sample**, The population in this study is a sector company industrial listed on the Indonesia Stock Exchange with a population of 55 companies. The type of sampling in this study uses the Purposive Sampling method, regular nonprobability sampling.

**Variable Operational Definition:** This study's dependent variable is tax aggressiveness, while the independent variables are liquidity, leverage, and firm size. Tax aggressiveness can be measured using the Effective Tax Rate (ETR) proxy using a comparison formula between the tax burden we pay and pre-tax profit.

To measure the first independent variable, namely, liquidity, is measured using the current ratio. The current ratio is the ratio used to measure a company's ability to meet its short-term obligations that are due soon (Henry, 2017, p. 297). The second independent variable, leverage, is measured using the debt to Equity Ratio. Debt to Equity Ratio is the ratio used to measure the proportion of debt to capital (Henry, 2017, p. 297). The third independent variable, company size, is measured by the natural logarithm (Ln) of total assets.

**Types, Sources, and Data Collection Methods.** The type of data used in this research is quantitative data. The data source of this research is secondary data. The data collection method in this study is by accessing the official website of the Indonesia Stock Exchange, namely [www.idx.co.id](http://www.idx.co.id) and then doing a literature study.

## RESULT AND DISCUSSION

**Descriptive Statistics Test.** Descriptive statistics are used to see an overview or description of data, which can be seen from the average value (mean), standard deviation, maximum, and minimum. Table 1 shows the results of data processing from descriptive statistical tests.

**Table 1.** Descriptive Statistical Test

	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity	63	.897	48.115	2.99089	5.986280
Leverage	63	.067	6.057	.91538	1.148896
Company Size	63	25.130	33.537	28.24521	2.261384
Tax Aggressiveness	63	.059	.937	.29198	.186617
Valid N (listwise)	63				

Source: Processed Data SPSS, 2022

Based on table 1 data processing results, it is known that the Sample is 63 samples. The table above shows that the liquidity variable has a mean value of 2.99089 with a minimum value of 0.897 and a maximum value of 48.115. Table 4.6 shows that variable leverage has a mean value of 0.91538 with a minimum value of 0.067 and a maximum value of 6.057. Table 4.6 shows that the company size variable has a mean value of 28.24521 with a minimum value of 25.130 and a maximum value of 33.537. Finally, table 4.6 shows that the tax aggressiveness variable has a mean value of 0.29189 with a minimum value of 0.059 and a maximum value of 0.937.

**Classic assumption test.** An excellent linear regression model, especially multiple linear regression, if it meets the BLUE criteria (Best Linear Unbiased Estimator). These criteria can be achieved if they meet the classical assumption requirements. Four classic assumption tests must be carried out in the multiple linear regression model: the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test (Bahri, 2018, p. 162). The normality test in this study uses the method One-Sample Kolmogorov Smirnov. Table 2 shows the results of data processing from the Normality test.

**Table 2.** Normality Test

		Unstandardized Residual
N		33
Normal Parameters <sup>b</sup>	Mean	.0000000
	Std. Deviation	.02694528
Most Extreme Difference	Absolute	.105
	Positive	.105
	Negative	-.089
Test Statistic		.105
Asymp. Sig. (2-tailed)		.200 <sup>c, d</sup>

- a. Test distribution is Normal.  
b. It was calculated from data.  
c. Lilliefors Significance Correction.  
d. This is a lower bound of the true significance.



Source: Processed Data SPSS, 2022

Based on the test results, table 2 shows the significance value shown in Asym Sig. (2- tailed) of 0.200 is more significant than 0.05, it can be concluded that the data is usually distributed to pass the normality test.

The multicollinearity test in this study uses a value approach, Value Inflation Factor (VIF).

**Table 3. Multicollinearity Test**

Model		Collinearity Statistics	
		Tolerance	View
1	(Constant)		
	Liquidity	.561	1.781
	Leverage	.648	1.544
	Company Size	.745	1.342

a. Dependent Variable: Tax Aggressiveness

Source: Processed Data SPSS, 2022

The test results in table 3 show that the VIF value on the liquidity variable is the result of 1.781, the leverage variable shows a value of 1.544, and there is a company size variable showing a value of 1.342. Therefore, based on the results of the multicollinearity test, all independent variables have a VIF value of <10. Therefore, it can be concluded that there is no correlation between the independent variables, so the sample data passes the multicollinearity test.

The autocorrelation test in this study uses the Durbin-Watson test (DW Test) to detect whether it is autocorrelation. Table 4 shows the results of data processing from the autocorrelation test.

**Table 4. Autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin-Watson
1	.600 <sup>a</sup>	.360	.294	.028305	1.987

a. Predictors: (Constant), Liquidity, Leverage, Company Size  
b. Dependent Variable: Tax Aggressiveness

Source: Processed Data SPSS, 2022

From table 4, the results of the autocorrelation test show that the Durbin-Watson test results have a value of 1.987. Furthermore, this value will be compared with the significance table from the Durbin Watson 5% table. The number of samples is 33 ( $n = 33$ ), with the number of the independent variable being three variables ( $k = 3$ ), then the value of  $dl = 1.2576$  and the value of  $du = 1.6511$ . The decision to state that there is no autocorrelation if  $du < DW < 4 - du$  (Bahri, 2018, p. 175). The equation results in this study were  $1.6511 < 1.987 < 2.3489$ , meaning that they were in areas where there was no autocorrelation or fulfilled the autocorrelation-free requirements, so the Sample concluded data in this study were free of autocorrelation symptoms and passed the autocorrelation test.

The heteroscedasticity test in this study uses the Glejser test method. Table 5 shows the results of data processing from the heteroscedasticity test.

**Table 5. Heteroscedasticity Test**

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	.055	.067		.810	.425
	Liquidity	-.006	.008	-.192	-.811	.424
	Leverage	.020	.023	.189	.858	.398
	Company Size	-.001	.002	-.119	-.578	.568

a. Dependent Variable: ABS\_Res

Source: Processed Data SPSS, 2022

Based on the test results, table 5 shows the results of the liquidity variable of 0.424, the results of the variables leverage of 0.398, and the result of the company size variable is 0.568. Therefore, the heteroscedasticity test results show that the significance value of each independent variable is more than 0.05, so it can be concluded that there is no heteroscedasticity problem, or in other words, the heteroscedasticity test is fulfilled.

**Multiple Linear Regression Test.** In this study, hypothesis testing uses multiple linear regression to look for the effect of two or more independent variables (X) on the dependent variable (Y). Table 6 shows the results of the multiple linear regression test.

**Table 6. Multiple Linear Regression Test**

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	.461	.109		4.244	.000
	Liquidity	.009	.012	.138	.696	.492
	Leverage	.101	.037	.507	2.746	.010
	Company Size	-.010	.003	-.540	-3.136	.004

a. Dependent Variable: Tax Aggressiveness

Source: Processed Data SPSS, 2022

Based on the results in table 6, a multiple linear regression equation models can be developed as follows:  $Y = 0.461 + 0.009 + 0.101 + (-0.010)$

1. A constant of 0.461 means that if liquidity, leverage, and company size does not exist, the tax aggressiveness is 0.461.
2. The regression coefficient X1, the magnitude of liquidity, is 0.009, which means that every one-unit increase in the liquidity variable will increase tax aggressiveness (ETR) by 0.009 and vice versa, each decrease by one unit of liquidity will reduce tax aggressiveness (ETR) by 0.009. Liquidity 0.009 is positive, indicating a unidirectional relationship between liquidity and tax aggressiveness.
3. The regression coefficient X2, which leverages the magnitude, is 0.101, which means every increase of one variable unit leverage (DER) will increase tax aggressiveness (ETR) by 0.101 and vice versa for each decrease of one unit of leverage (DER) it will reduce tax aggressiveness (ETR) by 0.101. Leverage 0.101 is positive, indicating the direction of a unidirectional relationship between leverage and tax aggressiveness.
4. The regression coefficient X3, which measures the company's size -0.010, is harmful. The sign (-) indicates the opposite direction of the relationship. The regression coefficient X3 is the size of the large company, namely -0.010, which means if the size company increases by one unit, it

will reduce the tax aggressiveness (ETR) of 0.010 and vice versa if the size of the company decreases by one unit, the tax aggressiveness (ETR) will increase by 0.010.

**Hypothesis testing.** Uji  $R^2$  was used to see how significant the percentage contribution of the influence of the independent variables simultaneously on the dependent variable was. The  $R^2$  test can be seen in table 7 below.

**Table 7.  $R^2$  test**

Model	R	R Square	Adjusted R Square	Std. An error in the Estimate
1	.600 <sup>a</sup>	.360	.294	.028305
a. Predictors: (Constant), Liquidity, Leverage, Company Size				
b. Dependent Variable: Tax Aggressiveness				

Source: Processed Data SPSS, 2022

The results show that the value of the coefficient of determination ( $R^2$ ) equals 0.360. This means that the tax aggressiveness is explained by 0.360 or 36% by the liquidity variable, leverage, and company size. The remaining 64% (100% - 36%) is influenced by factors outside the analyzed regression model.

The partial Regression Test (t-test) aims to determine whether there is any influence of each independent variable on the dependent variable. The results of the t-test can be seen in the following table.

**Table 8. Partial Regression Test (t-test)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	.461	.109		4.244	.000
	Liquidity	.009	.012	.138	.696	.492
	Leverage	.101	.037	.507	2.746	.010
	Company Size	-.010	.003	-.540	-3.136	.004
a. Dependent Variable: Tax Aggressiveness						

Source: Processed Data SPSS, 2022

Based on the test results in table 8, it is shown that the liquidity variable is a  $t_{\text{count}}$  of 0.696, which is smaller than  $t_{\text{table}}$  of 2.04227 with a significance level of 0.492 greater than 0.05, meaning  $H_0$  accepted and  $H_a$  rejected. It can be concluded that partial liquidity is no significant effect on tax aggressiveness. The first hypothesis, which states that liquidity affects tax aggressiveness, cannot be accepted, or  $H_1$  is rejected.

On variables, leverage obtained a  $t_{\text{count}}$  of 2.746, more significant than  $t_{\text{table}}$  of 2.04227 with a significance level of 0.010, which is less than 0.05, meaning that  $H_0$  rejected and  $H_a$  accepted. Therefore, it can be concluded that partial leverage effect tax aggressiveness. Therefore, the second hypothesis states leverage effect on tax aggressiveness received or, in other words,  $H_2$  is accepted.

In the company size variable,  $t$  is obtained  $t_{\text{count}}$  -3.136 is more significant than  $t_{\text{table}}$  of 2.04227 with a significance level of 0.004 less than 0.05, indicating that partially company size affects tax aggressiveness, the sign (-) means it has a negative effect. Therefore, the third hypothesis, which states that firm size affects tax aggressiveness, is accepted; in other words,  $H_3$  is accepted.



## RESULT AND DISCUSSION

**The Effect of Liquidity on Tax Aggressiveness.** This study's results indicate that liquidity does not affect tax aggressiveness, as evidenced by  $t_{\text{count}}$  0.696 smaller than  $t_{\text{table}}$  2.04227 with a significance level of 0.492 greater than 0.05. Therefore, with this value, it is concluded that Hypothesis 1 (H1) is rejected, which states that liquidity affects tax aggressiveness. The results of this study can be interpreted that the higher or lower the liquidity ratio, it does not affect the company's actions to reduce the tax burden. It can be caused because the company regularly analyzes and evaluates its liquidity level so that it can avoid financial excess or deficiency so that the company can pay off its short-term obligations, including paying tax obligations. Good performance agents give rise to trust shareholders. This study's results align with Surtiyo's (2021) research, which states that liquidity does not affect tax aggressiveness. As for other similar studies, which is research conducted by Muliasari and Hidayat (2020), liquidity does not affect tax aggressiveness. The lack of liquidity effect on tax aggressiveness can be caused by company management maintaining company liquidity and continuously monitoring the availability of cash in fulfilling short-term obligations, thereby maintaining the trust of investors under certain conditions.

**Effect of Leverage on Tax Aggressiveness.** This study's results indicate that leverage significantly influences tax aggressiveness, as seen from the  $t_{\text{count}}$  of 2.746, more significant than a  $t_{\text{table}}$  of 2.04227 with a significance level of 0.010, which is less than 0.05. Therefore, with this value, it is concluded that Hypothesis 2 (H2) is accepted, which states that leverage effect tax aggressiveness. These results follow agency theory, which states that the higher leverage of the company, the better the transfer of prosperity from creditors to shareholders. Leverage is a ratio that describes how much funding is through debt. Companies with a more significant proportion of debt in funding have higher agency costs. Therefore, companies with high leverage have a high obligation to meet the information needs of long-term creditors. In addition, the higher the use of debt in the financing, the greater the company's actions seek to reduce the tax burden by taking advantage of the emergence of interest expenses on debt loans which cause a decrease in company income or profits. This study's results align with Hidayat and Fitria's (2018) research, which states that leverage affects tax aggressiveness. Another similar research, conducted by Diah Amalia (2021), states that leverage effect tax aggressiveness, which can be caused by companies taking advantage of interest expenses which can reduce company profits so that the tax to be paid is reduced.

**The Effect of Company Size on Tax Aggressiveness.** Based on the results of this study indicate that company size affects tax aggressiveness, seen from  $t_{\text{count}}$  of 3.136 greater than  $t_{\text{table}}$  of 2.04227 with a significance level of 0.004 less than 0.05, indicating that partially company size affects tax aggressiveness, the (-) sign means it has a negative influence. Therefore, the third hypothesis, which states company size affects tax aggressiveness, is received, or in other words, H3 is accepted. The influence of company size, following agency theory, states that the management agent can use the resources owned by the company to maximize performance compensation agent, reducing the company's tax burden to maximize performance company. There is a relationship between the assets owned by a company that generates depreciation costs and the size of a company; the more significant the company's size, the greater the total assets owned, so the higher the company's depreciation costs. Companies can use depreciation costs to reduce company income because depreciation costs can be used as deduction from taxable income or gross income. Therefore, assets experiencing depreciation will reduce the company's income,

which can decrease the tax burden that the company will pay in line with research conducted by Lesono et al. (2019), which stated that company size harms tax aggressiveness.

## CONCLUSION

Based on the results of research and discussion, it can be concluded that:

1. Liquidity partially does not affect the tax aggressiveness of the company industrial listed on the Indonesia Stock Exchange for the 2019-2021 period. Therefore, based on the results of this study, the first hypothesis (H1) was rejected.
2. Leverage partially affects the tax aggressiveness of the company industrial listed on the Indonesia Stock Exchange for 2019-2021. Therefore, based on the results of this study, the second hypothesis (H2) is accepted.
3. Firm size partially harms tax aggressiveness. Therefore, based on the research results, the third hypothesis (H3) is accepted by showing a negative effect.

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